SUNTSU

Ceramic SMD 4 Pad Clipped Sinewave (VC)TCXO

STC22K Series

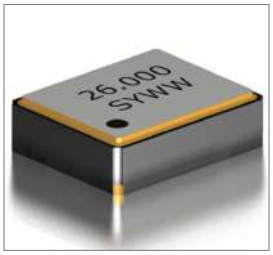
2.5mm x 2.0mm

Features

- ±0.5ppm (Frequency Stability) Available
- Clipped Sinewave
- (VC)TCXO
- Tape and Reel

Applications

- GPS
- Mobile Communication Equipment
- Cellular And Cordless Phones
- IP Networking



Part Numbering Guide

STC 22 K 30 R 48 V E - 26.000M

- **SUNTSU TCXO**
- **2.5mm x 2.0mm**
- **CLIPPED SINEWAVE**
- **SUPPLY VOLTAGE**
  - 18 : 1.8V±5%
  - 25 : 2.5V±5%
  - 27 : 2.7V±5%
  - 28 : 2.8V±5%
  - 30 : 3.0V±5%
  - 33 : 3.3V±5%
- **FREQUENCY STABILITY**
  - N : ±5.0ppm
  - O : ±2.5ppm
  - P : ±2.0ppm
  - Q : ±1.5ppm
  - R : ±1.0ppm
  - F : ±0.5ppm
- **OPERATING TEMPERATURE RANGE**
  - 07 : 0°C - +70°C
  - 16 : -10°C - +60°C
  - 17 : -10°C - +70°C
  - 27 : -20°C - +70°C
  - 38 : -30°C - +85°C
  - 48 : -40°C - +85°C
- **TCXO/VCTCXO**
  - BLANK : TCXO
  - V : VCTCXO
- **PULLABILITY**
  - BLANK : TCXO
  - E : ±12.00ppm
  - F : ±8.0ppm
  - G : ±5.0ppm
- **FREQUENCY**
  - MHz

RoHS COMPLIANT

Cage Code: 4GUT4

To customize your parameters contact a Suntsu representative.

Electrical Parameters	Units	Minimum	Typical	Maximum	Remarks
Frequency Range	MHz	13		52	
Frequency Tolerance at +25°C	ppm	-2.0		+2.0	1 Hour after reflow
Freq. Stability vs. Op Temp.	ppm	-0.5		+0.5	See part numbering guide for options.
Freq. Stability vs. Supply Voltage	ppm	-0.2		+0.2	V_{DD}±5% change.
Freq. Stability vs. Load	ppm	-0.2		+0.2	±10% change
Freq. Stability vs. Aging	ppm	-1.0		+1.0	1 Year
Operating Temperature	°C	-40		+85	See part numbering guide for options.
Storage Temperature	°C	-55		+125	
Supply Voltage (V_{DD}) - 3.0V Option	V	2.985	3.0	3.015	See part numbering guide for options.
Current (I_{DD})	mA			2	
Control Voltage (V_C, VCTCXO)	V	0		V_{DD}	Center Voltage: V_{DD}*50%.
Pullability (VCTCXO)	ppm	±5.0		±12.0	See part numbering guide for options.
Linearity (VCTCXO)	%			10	
Output Load (Clipped Sinewave)	kΩ//pF			10//10	
Output Logic Levels	V_{P-P}	0.8			
Symmetry (Duty Cycle)	%	40	50	60	
Start-Up Time	ms			2.0	
VC Input Impedance (VCTCXO)	kΩ	100			
Phase Noise (Typical) 10Hz Offset	dBc/Hz		-85		
Phase Noise (Typical) 100Hz Offset	dBc/Hz		-115		
Phase Noise (Typical) 1KHz Offset	dBc/Hz		-135		
Phase Noise (Typical) 10KHz Offset	dBc/Hz		-145		
Phase Noise (Typical) 100KHz Offset	dBc/Hz		-150		

Suntsu Electronics, Inc.
142 TECHNOLOGY DR., SUITE 150
IRVINE, CA 92618

Call: +1-949-783-7300 | Fax: +1-949-783-7301

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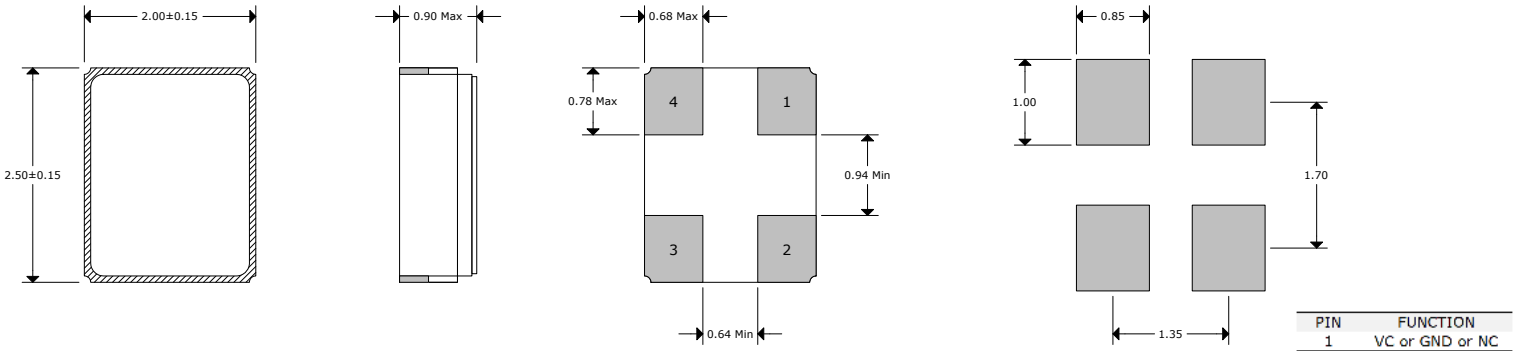
Ceramic SMD 4 Pad Clipped Sinewave (VC)TCXO

STC22K Series

2.5mm x 2.0mm

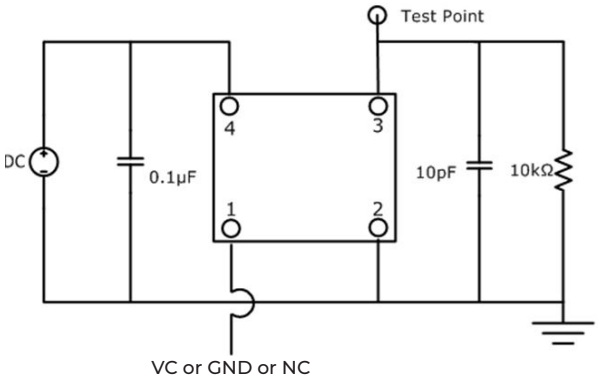
Outline Drawing

All dimensions are in millimeters (mm) unless otherwise noted. Drawings are not to scale.

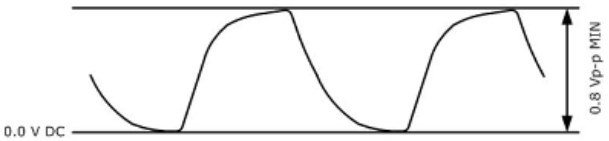


PIN	FUNCTION
1	VC or GND or NC
2	GND
3	OUTPUT
4	VDD

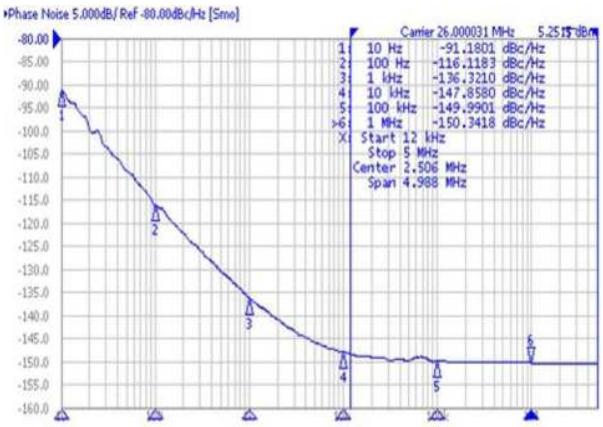
Test Circuit (Clipped Sinewave)



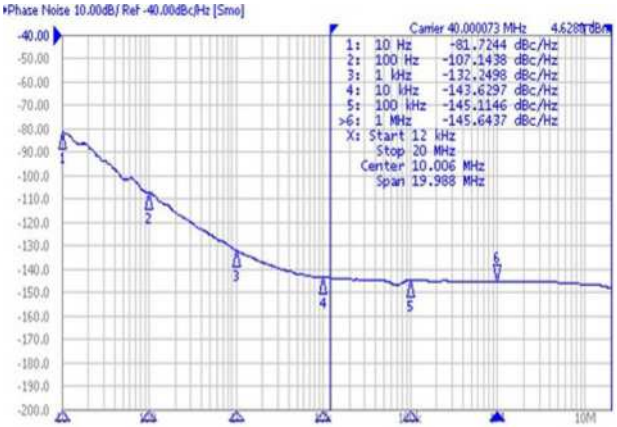
Waveform (Clipped Sinewave)



Typical Phase Noise (Measured By Agilent E5052A)



Frequency - 26.000MHz



Frequency - 40.000MHz

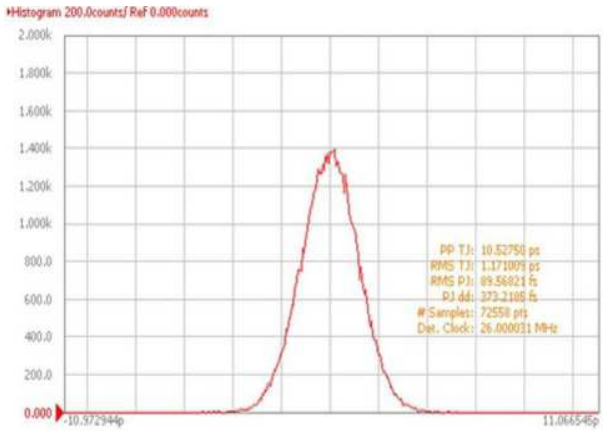
www.suntsu.com

Specifications are subject to change without notice.

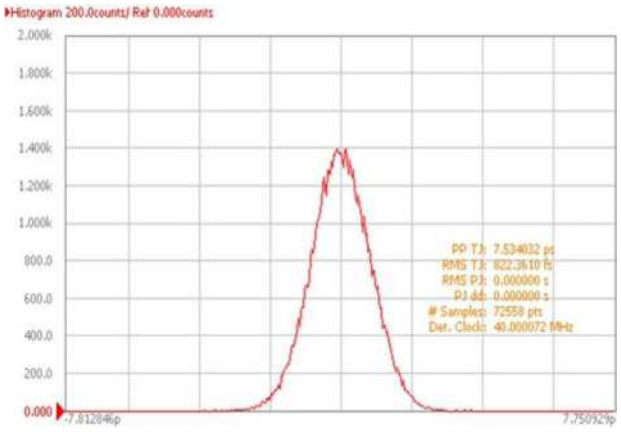
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Jitter Performance (Measured By Agilent E5052A)



Frequency - 26.000MHz

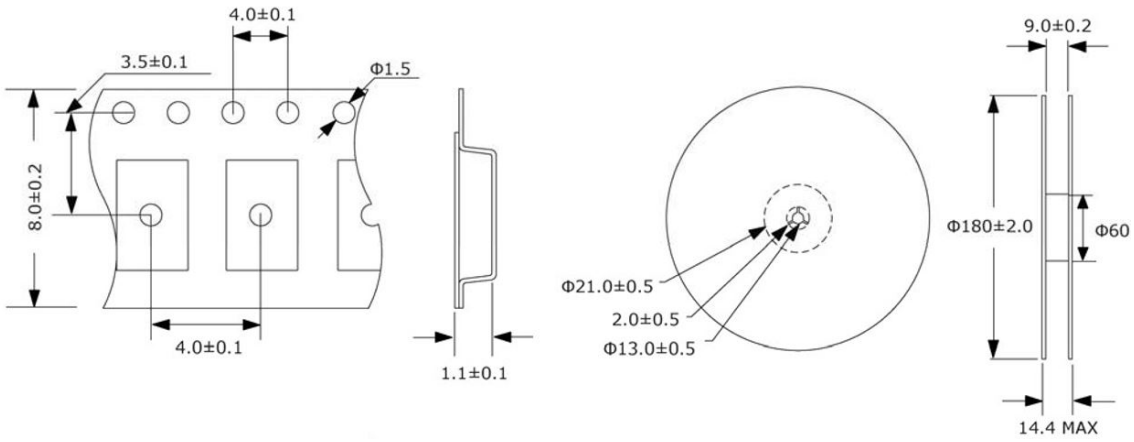


Frequency - 40.000MHz

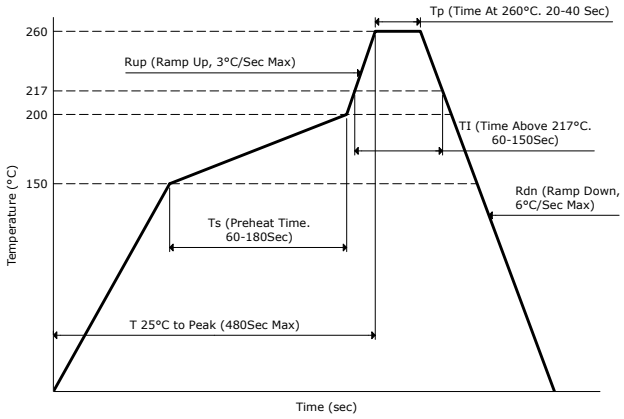
Tape And Reel Dimensions

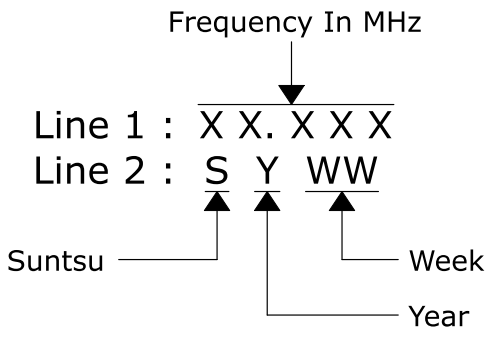
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3,000pcs/Reel



Reflow Profile & Part Marking





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Environmental Specifications		Mechanical Specifications	
Temperature Cycling	MIL-STD-883, Method 1010, Condition B	Mechanical Shock	MIL-STD-202, Method 213, Condition B
Fine Leak Test	MIL-STD-883, Method 1014, Condition A	Vibration	MIL-STD-883, Method 2007, Condition A
Gross Leak Test	MIL-STD-883, Method 1014, Condition C	Moisture Resistance	MIL-STD-883, Method 1004
Solderability	MIL-STD-883, Method 2003	Resistance to Solvents	MIL-STD-202, Method 215
Moisture Sensitivity	J-STD-020, MSL 1	Resistance to Soldering Heat	MIL-STD-202, Method 210, Condition K

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